**2020 Residential Energy Consumption Survey**

**NRFU Questionnaire Specifications**

The 2020 Residential Energy Consumption Survey (RECS) will include a follow-up nonresponse follow-up (NRFU) questionnaire. This questionnaire will be administered by paper only. The primary purpose of these specifications is to document the wording of questions and responses seen by respondents, as well as the skip logic that guides respondents through the instrument. A secondary purpose of these specifications is to document metadata for various RECS project needs – this includes variable names, variable types, response set values, and allowable numeric ranges.

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| The template for each item in these specifications is as follows: **A1** |

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| **VARIABLE1** | |
| **ASK** | All respondents |
| Question Text   1. Yes 2. No | |
| **NEXT** | VARIABLE2 |

In the example above, the responses to VARIABLE1 would be stored as values of 1 and 0. For questions that require a numeric response, the allowable range is specified in this format: {TWO DIGITS}. The response sets and ranges are generally consistent between the 2020 RECS main household and NRFU questionnaire.

The following is a list of response set conventions that will generally be used for the 2020 RECS project:

* Yes/No questions: 1 for Yes, 0 for No
* Select-all-that-apply questions: 1 if selected, 0 if not
* Other response: 99
* Not Applicable response: -3
* Explicit Don’t Know response: -4
* Illegible responses (paper only): -5
* Multiple responses to single response question (paper only): -6

Please answer the following questions about the home associated with the address on the enclosed letter.

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| **TYPEHUQ** | |
| **ASK** | All respondents |
| Which best describes your home?   1. Mobile home 2. Single-family house detached from any other house 3. Single-family house attached to one or more other houses (for example: duplex, row house, or townhome) 4. Apartment in a building with 2 to 4 units 5. Apartment in a building with 5 or more units | |
| **NEXT** | If TYPEHUQ in(2,3): CELLAR, ATTIC, PRKGPLC1  Else: PRIMRES |

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| **CELLAR, ATTIC, PRKGPLC1** | |
| **ASK** | If TYPEHUQ in(2,3) |
| Which of the following areas does your home have?  Yes No  Basement [CELLAR] 1 0  Attic [ATTIC] 1 0  Attached garage [PRKGPLC1] 1 0 | |
| **NEXT** | STORIES |

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| **STORIES** | |
| **ASK** | If TYPEHUQ in(2,3) |
| Not including basements or attics, how many stories does your home have?   1. One story 2. Two stories 3. Three stories 4. Four or more stories 5. Split-level | |
| **NEXT** | PRIMRES |

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| **PRIMRES** | |
| **ASK** | All respondents |
| Is the home associated with the address on the enclosed letter your primary residence? Your primary residence is the place where you live most of the year.   1. Yes 2. No | |
| **NEXT** | KOWNRENT |

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| **KOWNRENT** | |
| **ASK** | All respondents |
| Is your home…   1. Owned by you or someone in your household? 2. Rented? 3. Occupied without payment of rent? | |
| **NEXT** | BEDROOMS |

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| **BEDROOMS** | |
| **ASK** | All respondents |
| How many bedrooms are in your home? Include rooms in finished basements and finished attics. *If none, please enter “0.”*  \_\_\_\_\_ Number of bedrooms  {ONE DIGIT} | |
| **NEXT** | YEARMADERANGE |

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| **YEARMADERANGE** | |
| **ASK** | All respondents |
| When was your home built?   1. Before 1950 2. 1950 to 1959 3. 1960 to 1969 4. 1970 to 1979 5. 1980 to 1989 6. 1990 to 1999 7. 2000 to 2009 8. 2010 to 2015 9. 2016 to 2020 | |
| **NEXT** | MOVER, MOVE20MON, MOVE21MON |

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| **MOVER, MOVE20MON, MOVE21MON** | |
| **ASK** | All respondents |
| When did your household move in to this home?   1. 2019 or earlier 2. 2020 🡪 In what month? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ [MOVE20MON: Character variable] 3. 2021 🡪 In what month? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ [MOVE21MON: Character variable] | |
| **NEXT** | VACANT |

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| **VACANT** | |
| **ASK** | All respondents |
| Was your home vacant for one or more months between January 2020 and now?   1. Yes 2. No   -4 Don’t know | |
| **NEXT** | SQFTEST |

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| **SQFTEST** | |
| **ASK** | All respondents |
| What is the square footage of your home?  \_\_\_\_\_ square feet  {FIVE DIGITS, COMMA FORMAT}  Don’t know [SQFTEST\_DK: 1 if selected, 0 if not] | |
| **NEXT** | If SQFTEST\_DK=1: SQFTRANGE  Else: NUMFRIG |

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| **SQFTRANGE** | |
| **ASK** | If SQFTEST\_DK=1 |
| We understand that you might not know how many square feet your home is. A home’s size is closely related to its energy use, so we would like you to provide an estimate. Please tell us which category best describes the square footage of your home.   1. Less than 600 square feet 2. 600 to 799 square feet 3. 800 to 999 square feet 4. 1,000 to 1,499 square feet 5. 1,500 to 1,999 square feet 6. 2,000 to 2,499 square feet 7. 2,500 to 2,999 square feet 8. 3,000 square feet or more   -4 Don’t know (*Select this option only if you are unable to provide a guess*) | |
| **NEXT** | NUMFRIG |

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| **NUMFRIG** | |
| **ASK** | All respondents |
| How many refrigerators are plugged-in and turned on in your home? Include compact refrigerators and refrigerators in basements or garages, even if they are only used occasionally. *If none, please enter “0.”*  \_\_\_\_\_ refrigerators  {ONE DIGIT} | |
| **NEXT** | NUMMEAL |

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| **NUMMEAL** | |
| **ASK** | All respondents |
| Which of the categories below best describes how often hot food is usually cooked in your home?   1. Three or more times a day 2. Two times a day 3. Once a day 4. A few times each week 5. About once a week 6. Less than once a week 7. Never | |
| **NEXT** | FUELFOOD |
| **MODE** |  |

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| **FUELFOOD** | |
| **ASK** | All respondents |
| What fuel used most for cooking in your home?   1. Electricity 2. Natural gas from underground pipes 3. Propane (bottled gas) | |
| **NEXT** | SEPFREEZ, DISHWASH, CWASHER, DRYER |
| **MODE** |  |

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| **SEPFREEZ, DISHWASH, CWASHER, DRYER** | |
| **ASK** | All respondents |
| Which of the following appliances do you have in your home? Do not include community clothes washers or dryers located in the basement or laundry room of an apartment building.  Yes No  Stand-alone freezer [SEPFREEZ] 1 0  Dishwasher [DISHWASH] 1 0  Clothes washer [CWASHER] 1 0  Clothes dryer [DRYER] 1 0 | |
| **NEXT** | DESKTOP, NUMLAPTOP, NUMTABLET, NUMSMPHONE |

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| **DESKTOP, NUMLAPTOP, NUMTABLET, NUMSMPHONE** | |
| **ASK** | All respondents |
| How many of each of the following are used in your home? *If none, please enter “0.”*  \_\_\_\_ Number of desktop computers [DESKTOP]  \_\_\_\_ Number of laptop computers [NUMLAPTOP]  \_\_\_\_ Number of tablet computers or e-readers (for example: iPad or Kindle) [NUMTABLET]  \_\_\_\_ Number of “smart” phones (for example, iPhone or Android) [NUMSMPHONE]  {FOR ALL: TWO DIGITS} | |
| **NEXT** | INTERNETYN |

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| **INTERNETYN** | |
| **ASK** | All respondents |
| In your home, do you or any member of your household have access to the Internet?   1. Yes 2. No | |
| **NEXT** | TELLWORK |

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| **TELLWORK** | |
| **ASK** | All respondents |
| Does anyone in your household telework or work from home? Include only work being done for pay.   1. Yes 2. No | |
| **NEXT** | TVCOLOR, CABLESAT, COMBODVR, SEPDVR, INTSTREAM, PLAYSTA |

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| **TVCOLOR, CABLESAT, COMBODVR, SEPDVR, INTSTREAM, PLAYSTA** | |
| **ASK** | All respondents |
| How many of each of the following are used in your home? *If none, please enter “0.”*  \_\_\_\_ Number of televisions [TVCOLOR]  \_\_\_\_ Number of cable or satellite boxes without DVR [CABLESAT]  \_\_\_\_ Number of cable or satellite boxes with DVR [COMBODVR]  \_\_\_\_ Number of separate DVRs (for example: TIVO) [SEPDVR]  \_\_\_\_ Number of Internet streaming devices (for example: Apple TV, Google Chromecast,  Amazon Fire TV, or Roku) [INSTSTREAM]  \_\_\_\_ Number of video game consoles [PLAYSTA]  {FOR ALL: TWO DIGITS} | |
| **NEXT** | LTGINLED |

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| **LGTINLED** | |
| **ASK** | All respondents |
| What portion of the light bulbs used inside your home are LED bulbs?  https://encrypted-tbn2.gstatic.com/images?q=tbn:ANd9GcTsaDzTo6EQoBA2M53pcCRuDklYAfFxHggve_N5TMV1UF2tf3X_   1. All 2. Most 3. About half 4. Some 5. None | |
| **NEXT** | LGTINCFL |

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| **LGTINCFL** | |
| **ASK** | All respondents |
| What portion of the light bulbs used inside your home are CFL bulbs?  http://www.bulborama.com/images/categories/2418.jpg   1. All 2. Most 3. About half 4. Some 5. None | |
| **NEXT** | LGTINCAN |

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| **LGTINCAN** | |
| **ASK** | All respondents |
| What portion of the light bulbs used inside your home are incandescent or halogen bulbs?  http://www.lightbulbsmart.com/wp-content/uploads/2012/07/light-bulb1.jpg   1. All 2. Most 3. About half 4. Some 5. None | |
| **NEXT** | EQUIPM |

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| **EQUIPM** | |
| **ASK** | All respondents |
| What is the main type of heating equipment used to provide heat for your home?   1. Central furnace 2. Steam or hot water system with radiators or pipes 3. Central heat pump 4. Ductless heat pump, also known as a “mini-split” 5. Built-in electric units installed in walls, ceilings, baseboards, or floors 6. Built-in room heater burning gas or kerosene 7. Wood or pellet stove 8. Portable electric heaters 9. Other (please specify): [EQUIPM\_other]   -4 Don’t know  -3 Home is not heated | |
| **NEXT** | FUELHEAT |

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| **FUELHEAT** | |
| **ASK** | All respondents |
| What is the fuel used by your home’s main heating equipment?   1. Electricity 2. Natural gas from underground pipes 3. Propane (bottled gas) 4. Fuel oil 5. Wood or pellets 6. Other (please specify): [FUELHEAT\_other]   -4 Don’t know  -3 Home is not heated | |
| **NEXT** | ACEQUIPM |

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| **ACEQUIPM** | |
| **ASK** | All respondents |
| What is the main type of air conditioning equipment used to cool your home?   1. Central air conditioner 2. Central heat pump 3. Ductless heat pump, also known as a “mini-split” 4. Window or wall air conditioner 5. Portable air conditioner 6. Evaporative or swamp cooler   -4 Don’t know  -3 Home is not air-conditioned | |
| **NEXT** | TYPETHERM |

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| **TYPETHERM** | |
| **ASK** | All respondents |
| Does your household use a thermostat to control the temperature inside your home?   1. Yes, a manual or non-programmable thermostat 2. Yes, a programmable thermostat 3. Yes, a “smart” or Internet-connected thermostat 4. No   -4 Don’t know | |
| **NEXT** | HEATCNTL |

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| **HEATCNTL** | |
| **ASK** | All respondents |
| Which of the following best describes how your household controls the indoor temperature during the winter?   1. Set one temperature and leave it there most of the time 2. Manually adjust the temperature 3. Programmable or smart thermostat automatically adjusts the temperature 4. Turn equipment on or off as needed 5. Our household does not have control over the temperature 6. Other (please specify): [HEATCNTL\_other]   -3 Home is not heated | |
| **NEXT** | FUELH2O |

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| **FUELH2O** | |
| **ASK** | All respondents |
| What fuel does your main water heater use?   1. Electricity 2. Natural gas from underground pipes 3. Propane (bottled gas) 4. Fuel oil 5. Wood 6. Solar thermal 7. Other (please specify): [FUELH2O\_other]   -4 Don’t know | |
| **NEXT** | SOLAR |

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| **SOLAR** | |
| **ASK** | All respondents |
| Does your home have a solar or photovoltaic system that generates electricity?   1. Yes 2. No | |
| **NEXT** | ELECVEH |

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| **ELECVEH** | |
| **ASK** | All respondents |
| Do you or any member of your household own or lease an electric vehicle? Please include both all-electric and plug-in hybrid electric vehicles.   1. Yes 2. No | |
| **NEXT** | HHAGE |

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| **HHAGE** | |
| **ASK** | All respondents |
| What is your age?  \_\_\_\_\_ years old  {THREE DIGITS} | |
| **NEXT** | EMPLOYHH |

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| **EMPLOYHH** | |
| **ASK** | All respondents |
| Which best describes your current employment status?   1. Employed full-time 2. Employed part-time 3. Retired 4. Not employed | |
| **NEXT** | NHLSDMEM |
| **MODE** |  |

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| **NHSLDMEM** | |
| **ASK** | All respondents |
| Including yourself, how many people live in this home? Do not include anyone who is just visiting, those away in the military, or children who are away at college.  \_\_\_\_\_ household members  {TWO DIGITS} | |
| **NEXT** | ATHOME |

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| **ATHOME** | |
| **ASK** | All respondents |
| How many weekdays is someone at home most or all of the day?   1. None 2. 1 day 3. 2 days 4. 3 days 5. 4 days 6. 5 days | |
| **NEXT** | MONEYPY5 |

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| **MONEYPY5** | |
| **ASK** | All respondents |
| Including all income sources, which category best describes the total combined income of all household members for the past year, before taxes and deductions?   1. Less than $15,000 2. $15,000 - $29,999 3. $30,000 - $59,999 4. $60,000 - $99,999 5. $100,000 or more | |
| **NEXT** | ELPAY |

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| **ELPAY** | |
| **ASK** | All respondents |
| Who is responsible for paying for the electricity used in this home?   1. Household is responsible for paying for all electricity used in this home 2. All electricity used in this home is included in the rent or condo fee 3. Some is paid by the household, some is included in the rent or condo fee 4. Other (please specify): [ELPAY\_other]     -4 Don’t know | |
| **NEXT** | SCALEB |

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| **SCALEB** | |
| **ASK** | All respondents |
| In the past year, how many months did your household reduce or forego expenses for basic household necessities, such as medicine or food, in order to pay an energy bill?   1. Almost every month 2. Some months 3. 1 or 2 months 4. Never | |
| **NEXT** | ENERGYASST |

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| **ENERGYASST** | |
| **ASK** | All respondents |
| Including times when you received assistance for heating and cooling bills, has your household participated in a home energy assistance program that helps to pay energy bills or fix broken equipment?   1. Yes 2. No | |
| **NEXT** | NRFUREASON |

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| **NRFURECALL** | |
| **ASK** | All respondents |
| Do you recall receiving prior requests to complete a similar survey?   1. Yes 2. No | |
| **NEXT** | If NRFURECALL=1: NRFUREASON  Else: COMMENTS |

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| **NRFUREASON** | |
| **ASK** | If NRFURECALL=1 |
| Which of the following best describes why you did not respond to prior requests?   1. I did not think the request was legitimate 2. The information requested was too personal 3. It was too much work 4. I did not know the answers to some questions 5. Other (please specify): [NRFUREASON\_other] | |
| **NEXT** | COMMENTS |
| **COMMENTS** | |
| **ASK** | All respondents |
| If you have any additional thoughts about any of the survey topics or the survey itself, please share them here:  Open-ended response | |
| **NEXT** | End of survey |

Please return this questionnaire in the enclosed postage-paid return envelope. If you have questions about this survey, please email or call us. <put appropriate email and phone contact information>